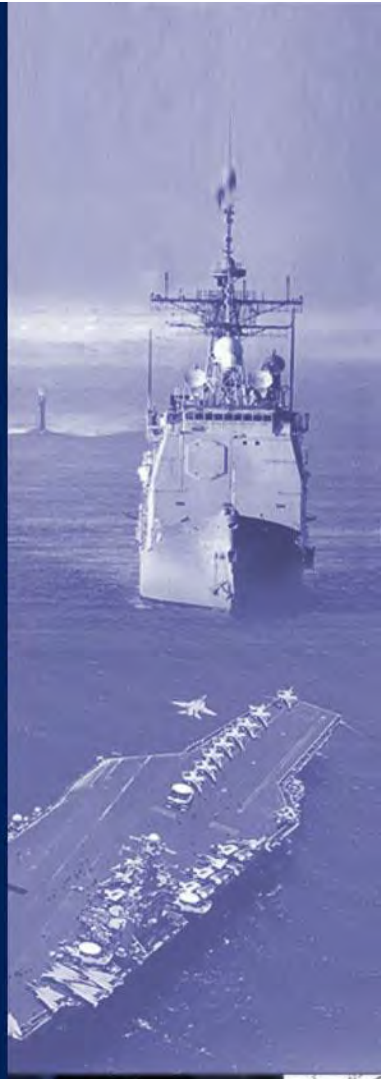
Enable the Integrated Force



Department of Navy
Engineering Standardization Initiatives

Defense Standardization Conference
30 August 2011

Mr. Chris Paquette

DON Standardization Officer
and
Director of Technical Policy and Standards for
Naval Sea Systems Command (NAVSEA)

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
30 AUG 2011		**00-00-2011 to 00-00-2011**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Department Of Navy Engineering Standardization Initiatives	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Naval Sea Systems Command (NAVSEA),Washington,DC,20376**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES
Presented to DMSMS and Standardization Conference Hollywood, FL Aug 29-Sept 01, 2011

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**20**	

DON Roles and Responsibilities SECNAVINST 5400.15C

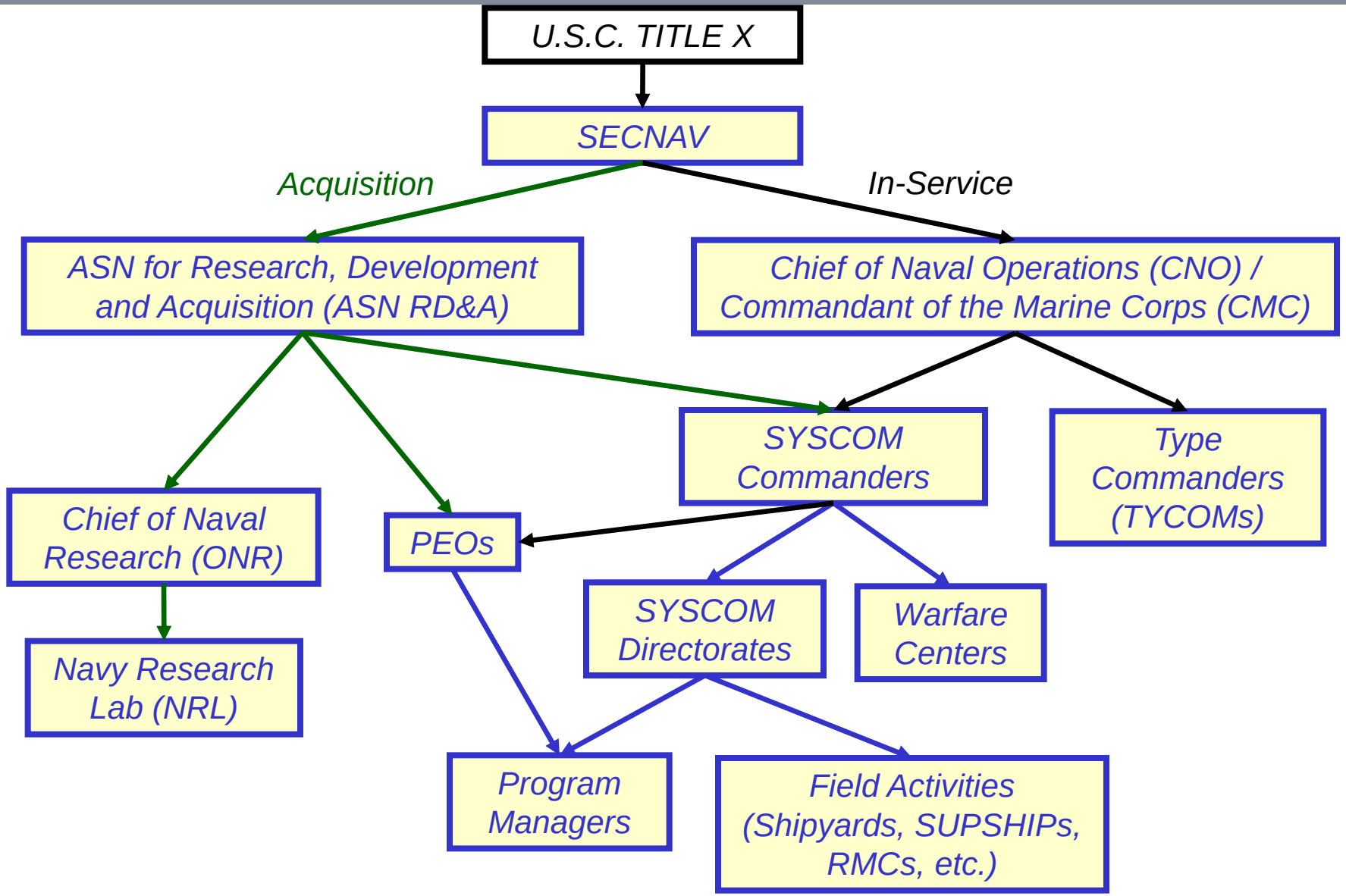
- Definition – **"Technical Authority is the authority, responsibility, and accountability to establish, monitor, and approve technical standards, tools, and processes . . ."**

- SYSCOM Commander **responsibilities include:**
  - **"Serve as the technical authority and operational safety and assurance certification authorities for their assigned areas of responsibility."**
  - **"Oversee the core processes to support . . . cost estimating, technology development, systems engineering, test & evaluation, configuration management . . ."**
  - **"Operate and sustain the most efficient infrastructure . . . science and technology, design, engineering, testing, technical expertise, and conduct of independent technical reviews."**

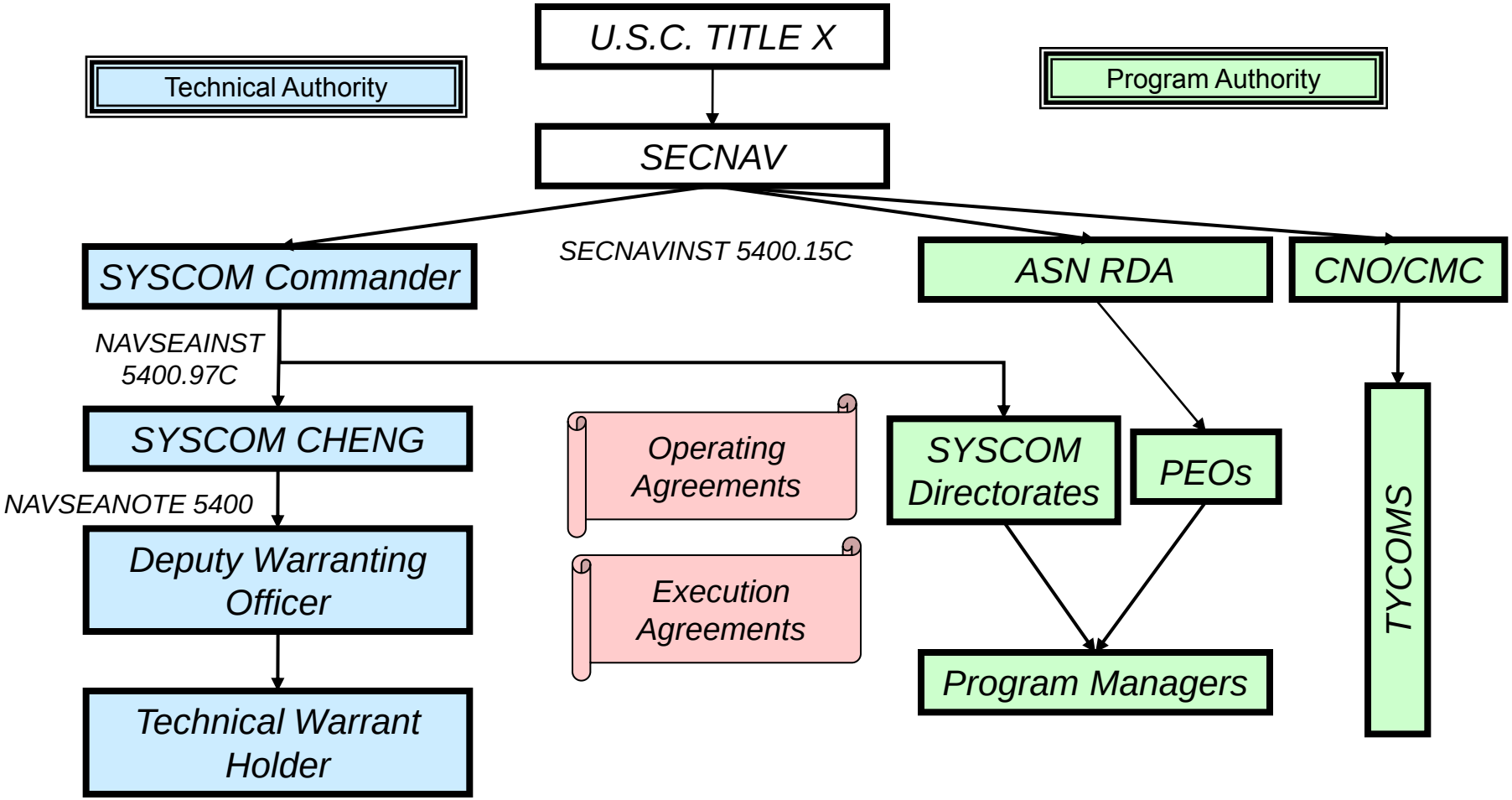
DON Standardization Roles

- **Department of Navy Standardization Executive: Ms. Mary Lacey, DASN RDT&E**
- **Department of Navy Standardization Officer: Chris Paquette**
- **SYSCOM Standardization Officers:**
  - **Naval Sea Systems Command (NAVSEA) - John Sofia**
  - **Naval Air Systems Command (NAVAIR) - Mike Sikora**
  - **Marine Corps Systems Command (MCSC) - Pankaj Guha**
  - **Naval Facilities Engineering Command (NAVFAC) - Steve Geusic**
  - **Space and Naval Warfare Systems Command (SPAWAR) - Mike Stewart**
  - **Naval Supply Systems Command (NAVSUP) - Jeff Sheldon**

DON Business Unit Alignment

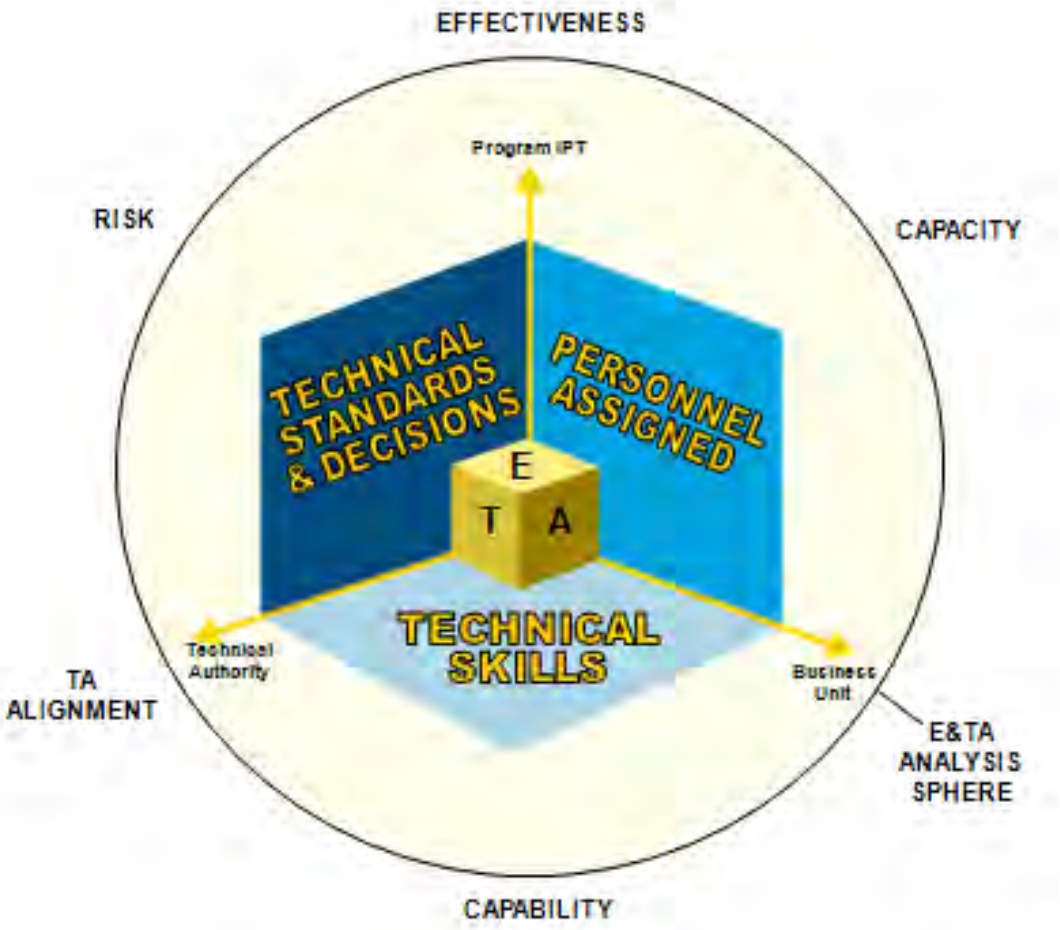


DON Technical and Program Authorities



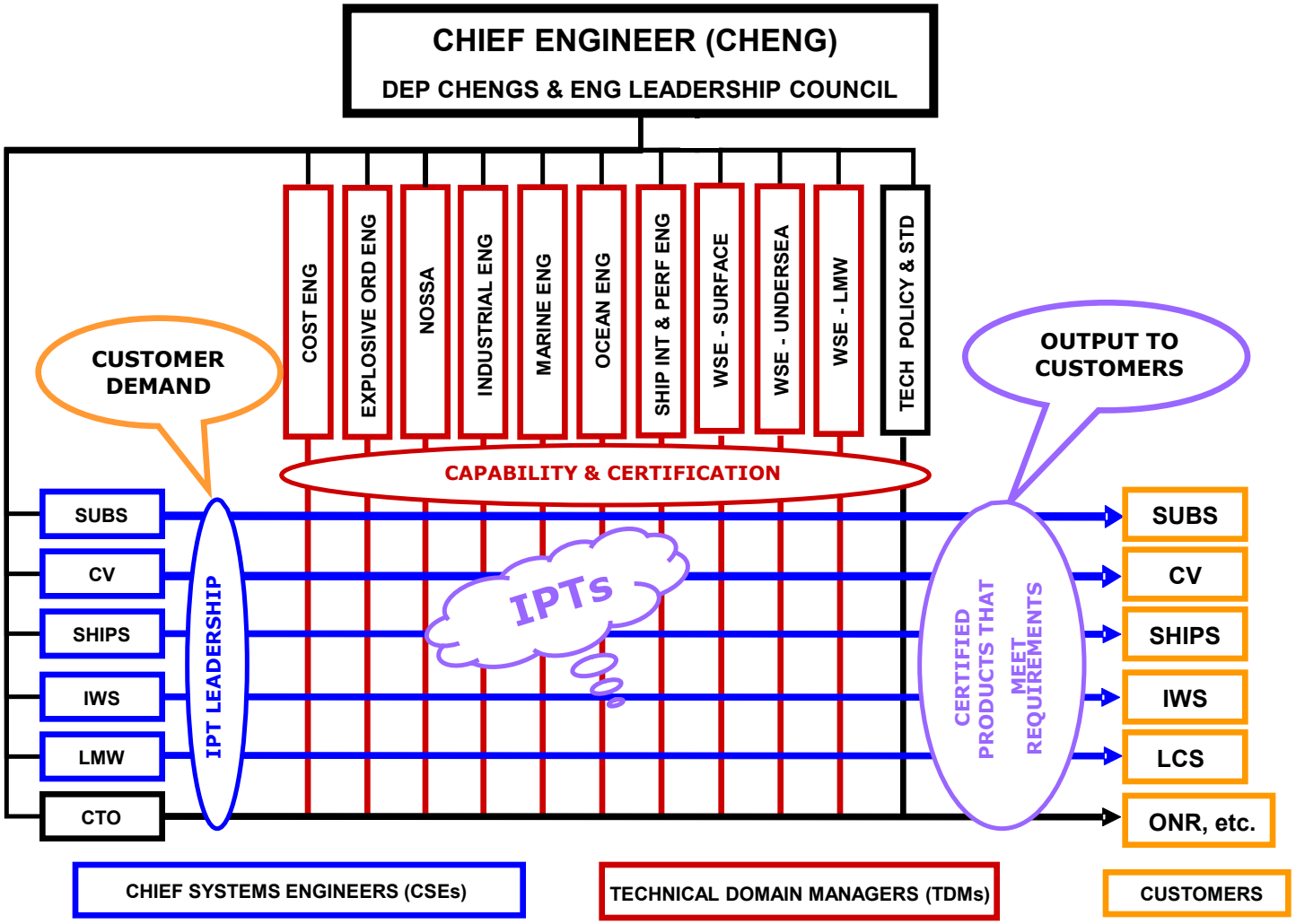
This can NOT be delegated to private industry

Competency Alignment



Implementation of Competency Alignment Example: NAVSEA

Research & Systems Engineering (R&SE)
Competency



NAVSEA Business Lines

- **Ships, submarines, submersibles, and other water craft including all associated ship systems, ship combat systems, shipboard support systems including ship/aviation interface systems and surface/submarine expendable ordnance.**
- **Assigned small arms, infantry equipment, body protective armor, and inshore undersea warfare equipment.**
- **Special explosive ordnance disposal tools and equipment.**
- **Chemical, biological, and radiological warfare defense material and equipment.**
- **Respiratory protective devices, diving methods and equipments, and submarine rescue methods and equipment.**
- **Equipage for towing and salvage.**

Reference: SECNAVINST 5400.15C

How is NAVSEA Engineering Improving Standards?

- Driving cost out of specs and standards through Commonality and Documents for Ship Cost Reduction (DSCR) / National Shipbuilding Research Program (NSRP) Efforts
  - Utilizing integrated variation reduction, total ownership cost (TOC) analysis, and item reduction
  - Utilizing Commodity Contracts/Sourcing to drive down unit costs
  - Defining and eliminating cost drivers in specs and standards
  - Defining and modifying or eliminating test requirements that are key cost drivers in specs and standards
- Leveraging American Bureau of Shipping (ABS) Standards
  - Combatant Ships - Naval Vessel Rules
  - Non-Combatant Ships - Steel Vessel Rules
- Developing and implementing "encyclopedia for sailors living on ships"
  - NSTM Revisions
- Aligning Test and Evaluation (T&E) resources to meet certification requirements
- Cumbersome Work Practice Reviews
  - Collaborative effort with shipyards to reduce cost via process and spec changes
- Critical Safety Item (CSI) Source Approvals
  - Documenting and leveraging existing process to ensure CSI adherence

NAVAIR Business Lines

- **Aircraft.**
- **Aeronautical weapons and IT systems.**
- **Associated subsystems to include life support, propulsion and power, armament/ordnance, avionics, mission support, and aviation support equipment, and related systems and equipment including training, photographic and reconnaissance, airborne mine countermeasures, aircraft launching and recovery, and target systems.**

Reference: SECNAVINST 5400.15C

How is NAVAIR Engineering Improving Standards?

- Published MIL-HDBK-522 which provides standardized repair procedures for aircraft electrical systems.
- Published MIL-DTL-29606A which provides the option of using thicker silver plating on wire to fight wire corrosion.
- Published MIL-PRF-81757D which improved the reliability for low maintenance batteries and increased the number of sources for a critical battery component.
- Adopted and qualified multiple sources for an SAE standard (SAE-AS5768) which standardized wire strippers used in system maintainers' tool kits.
- Published control monitor specification (MIL-DTL-85629B) so that the monitors are compatible with current video and frequencies required by the Commercial Spectrum Enhancement Act.
- Proposed MIL-DTL-81904B provides requirements for coating compound which improves the safety of ordnance that are exposed to high-flux thermal environments. When completed, manufacturers will be able to meet environmental standards and qualification costs will be reduced.
- Published MIL-PRF-32295A for cleaners that are more environmentally friendly but effective in cleaning grease and tire residues.

MCSC Business Lines

- **Marine Corps Expeditionary Forces Weapons and C4I Systems, including:**
  - **Information Systems and Network Infrastructure systems and equipment**
  - **Battlespace Management and Air Defense systems and equipment to include Combat Operations Center systems and Radars**
  - **Communications and Intelligence systems and equipment**
  - **Weapons Systems and Equipment**
  - **Ground vehicles to include Tactical Vehicles, Tanks, Amphibious vehicles**

Reference: SECNAVINST 5400.15C

How is Marine Corps Engineering Improving Standards?

- Marine Corps Systems Command
  - Small, agile acquisition organization
  - Same technical expertise as other SYSCOMs (e.g., Naval Surface Warfare Center (NSWC), Tank Automotive Research, Development and Engineering Center (TARDEC), Army Research Laboratory (ARL), SPAWAR, etc.
- Created Statement of Work, CDRL, and Tracking Tool (SCATT) to standardize Request for Proposal (RFP) requirements.
- Developed Performance Specification/ Systems Design Specification for individual program.
- Maximize use of Government specifications and standards as reference documents.
- Developed Information Support Plan (ISP) that identifies C4I technical standards in Technical view (TV1).
- Implemented Systems Engineering Technical Review (SETR) process for individual program.

NAVFAC Business Lines

- Capital Improvements
- Asset Management (Planning, Project Development, and Real Estate)
- Environmental (Planning, Restoration, Remediation, and Conservation)
- Public Works (Maintenance and Facility Services)
- Expeditionary Equipment
- Anti-Terrorism / Force Protection (Ashore)
- Associated Engineering Construction, Training, Infrastructure, and Logistics

Reference: SECNAVINST 5400.15C

How is NAVFAC Engineering Improving Standards?

- **Employ emerging industry standards for Energy, Sustainable Development, and Corrosion Prevention**

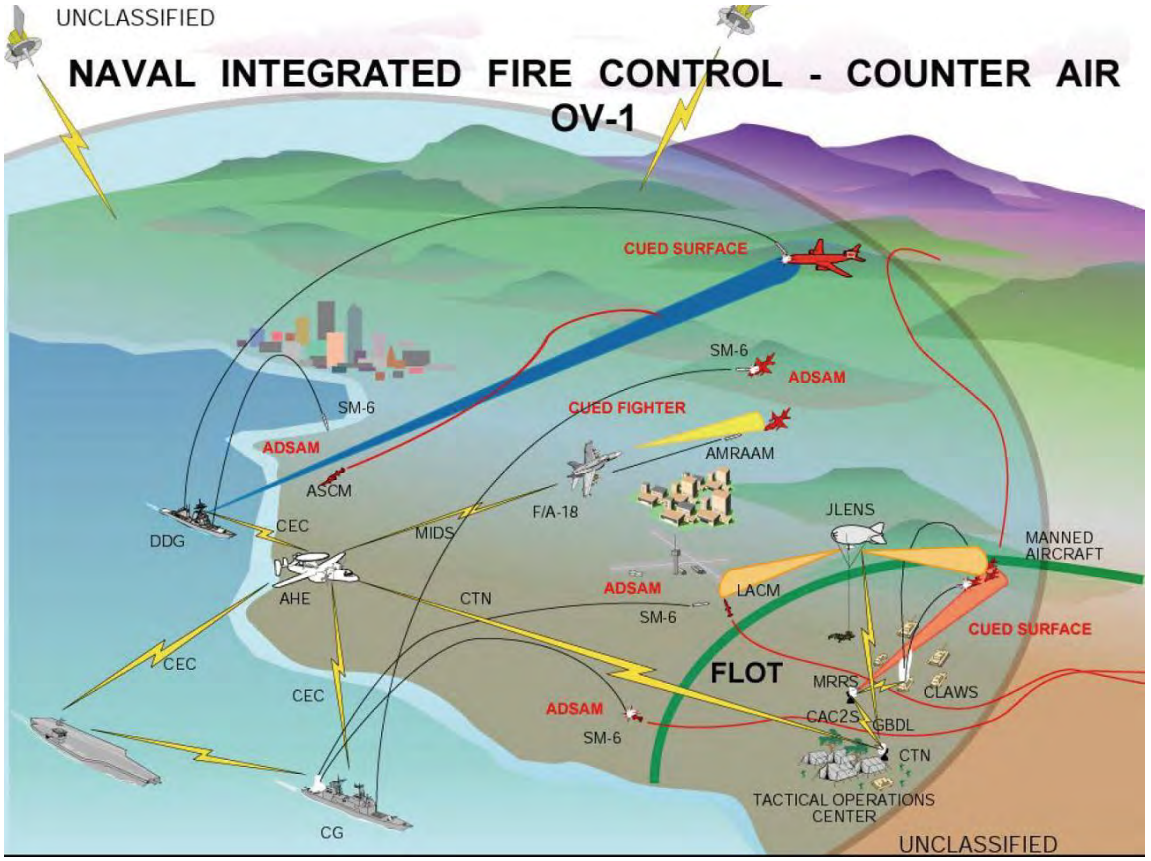
LEED Gold Certification
ASHRAE 189.1 High Performance Buildings

Submarine Camels
(Fiber Reinforced Plastics)

- **Unify Facility Criteria across DoD (UFC program)**
  - Air Traffic Control Towers
  - Armories
  - Magazines
  - Corrosion Control Hangars
  - Child Development Centers
  - Fire Stations
  - Lodging Facilities
  - Fitness Centers
  - Dining Facilities
- **Define Life, Safety, and Health standards for facilities in support of military operations (Contingency Engineering)**

SPAWAR Business Lines

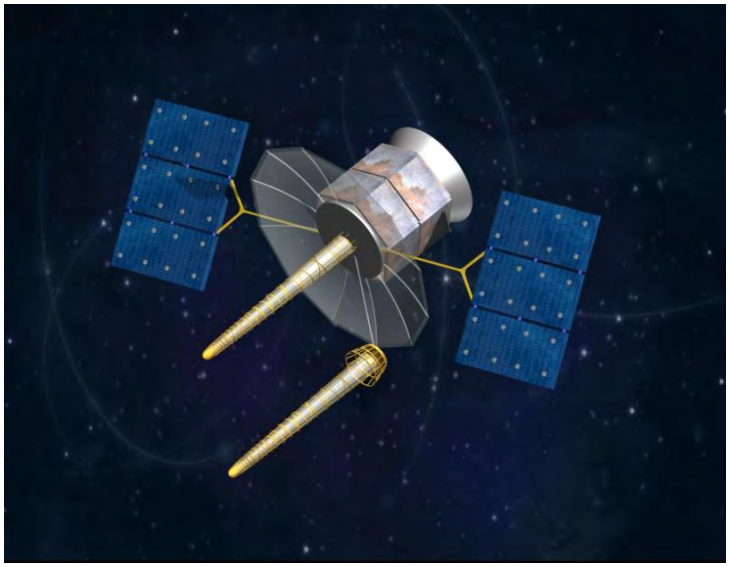
- Command and control systems
- Communications systems
- Intelligence systems
- Undersea surveillance systems
- Space systems
- Enterprise information systems
- Force level warfare systems architecture
- Force Warfare System Engineering Board coordination among the SYSCOMs



Reference: *SECNAVINST* 5400.15C

How is SPAWAR Engineering Improving Standards?

- Under Systems Engineering (SE) Technical Authority construct and SE Guide, review Navy programs for adherence to engineering criteria. Part of that criteria is reviewing IT systems for adherence to commercial standards and MIL-STDs.
- Provide support on IT standards to Navy afloat and ashore networks.
- Review all applicable Navy programs for adherence to IT standards.
- Developing Navy enterprise level standards profiles (NESP) and guidance for Information Technology systems.
- Update to MIL-HDBK-828 for Range Laser Safety.
- Working with DISA on standards in Defense Information Standards Registry (DISR) and GiG Technical Profiles (GTP).
- Working with DISA on MUOS MIL-STD development.



NAVSUP Business Lines

- Act as process coordinator for logistics issues as directed by the ASN(RDA).
- Collaborate with the other SYSCOMs and stakeholders to fully integrate logistics support policies, tools, and standards.
- Chair the Logistics Partnership Council (LPC) consisting of logistics heads from the CNO, CMC, SYSCOMs, and key stakeholders – Commander, U.S. Fleet Forces Command (CFFC) / Commanding General Fleet Marine Forces (CGFMF), PEOs, and DRPMs.
- Act as administrative agent to ensure the Independent Logistics Assessment process is conducted consistently and in compliance with SECNAV policy.
- Monitor and report the progress and impact of LPC efforts to ASN(RDA) and SYSCOM leadership semi-annually.
- Act as the responsible agent for overall DON Automatic Identification Technology (AIT) and serve as the DON AIT Program Manager. Chair the DON AIT Steering Group consisting of AIT leads from other SYSCOMs and key stakeholders – CNO, CMC, Commander U.S. Fleet Forces Command (CFFC) / Commanding General Fleet Marine Forces (CGFMF), PEOs, and DRPMs.

Reference: SECNAVINST 5400.15C

How is NAVSUP Engineering Improving Standards?

- Supporting NAVSEA Commonality/HME Standardization initiatives through DLA-developed Commodity Contracts. Currently, contracts cover 389 configurations of gate, globe, check, angle and stop-check valves.
- Navy Data Item Description (DID) Approval Authority – approved 41 repetitive DIDs for NAVSEA and NAVAIR in CY10.
- Participating in Packaging DID review led by ARDEC-Packaging Division, Picatinny Arsenal at direction of Defense Packaging Policy Group; effort focusing on consolidation of nine packaging related DIDs.
- Standardization project support – review & comment on 350+ projects each year for ASME/SAE/DoD.
- Participating on SAE Subcommittee AGE-2D Packaging, Handling & Transportation.
- Packaging design/specifications, reusable container design, and environmental support.
- Contract oversight for technical and quality assurance requirements.
- Critical Application Item (CAI) source approvals.
- Logistics Engineering Change Proposals and Performance Based Logistics contracts.